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EXAMINER	
SEHARASEYON, JEGATHEESAN	
ART UNIT	**PAPER NUMBER**
1647	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/698,402	ESCARY, JEAN-LOUIS	
	Examiner	Art Unit	
	Jegatheesan Seharaseyon, Ph.D	1647	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 February 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *40,41,43,44,46,50,51,53 and 57-81* is/are pending in the application.

4a) Of the above claim(s) *51* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *40,41,43,44,46,50,53 and 57-810* is/are rejected.

7)☒ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/20/2007 has been entered. An action on the RCE follows.

2. Claims 40, 43, 46, 50, 51, 53, 60 and 62 are amended. Claims 1-39, 42, 45, 48, 49, 52 and 54-56 are canceled. Claim 51 remains withdrawn. Claims 63-81 are newly added. Therefore, claims 40, 41, 43, 44, 46, 47, 53 and 57-81 are examined.

3. Any objection or rejection of record, which is not expressly repeated in this action, has been overcome by Applicant's response and withdrawn.

4. The allowability of claims 53, 57-59 and 61 is withdrawn.

Specification

5. The specification is objected to because of the recitation of tables without table numbers or titles (see pages 38-55).

6. The use of the trademarks FACScalibur and CellQuest have been noted in this application (p. 52, paragraph 354). Trademarks should be capitalized wherever they appear and be accompanied by the generic terminology. Although the use of trademarks is permissible in patent application, the proprietary nature of the trademarks

should be respected an every effort made to prevent their use in any manner that might adversely affect their validity as trademarks.

Claim Objections

7. Claims 40, 41, 43, 44, 46, 47, 50, 53, 57, 58, 59, 63- and 51-65 objected to because as written, it is not clear if amino acid positions 28, 70 and 122 are relative to the start of the full-length SEQ ID NO: 2, or relative to the start of the polypeptide starting at amino acid 24 of SEQ ID NO: 2 (i.e. 28, 70 and 122 amino acids from position 24 of SEQ ID NO: 2).

8. Applicant is advised that should claims 40 and 41 be found allowable, claims 68 and 69 will be objected to under 37 CFR 1.75 as being substantial duplicates thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). In the instant case, the claims are drawn to identical subject matter except for recited functional limitations of antiviral activity (claims 68 and 69). If found allowable, the polypeptide of claims 40 and 41 would also be expected to inherently possess anti viral, immunomodulatory and /or anti-proliferative activity.

9. Applicant is advised that should claims 43 and 44 be found allowable, claims 70 and 71 will be objected to under 37 CFR 1.75 as being substantial duplicates thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper

after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). In the instant case, the claims are drawn to identical subject matter except for recited functional limitations of antiviral activity (claims 70 and 71). If found allowable, the polypeptide of claims 43 and 44 would also be expected to inherently possess anti viral, immunomodulatory and /or anti-proliferative.

10. Applicant is advised that should claims 46 and 47 be found allowable, claims 64, 66 and 67 will be objected to under 37 CFR 1.75 as being substantial duplicates thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). In the instant case, the claims are drawn to identical subject matter except for recited functional limitations of antiviral activity (claims 64, 66 and 67). If found allowable, the polypeptide of claims 46 and 47 would also be expected to inherently possess anti viral, immunomodulatory and /or anti-proliferative.

Claim Rejections - 35 USC § 112, first paragraph (new)

11. Claims 40, 41, 43, 44, 46, 47, 50, 53, 57, 58, 60-73, 76, 78 and 79-81 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled

in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. *This is a written description rejection.*

The specification discloses isolated polypeptide Q28R, Q70E or C122S of SEQ ID NO: 2 or amino acids 24 thru 189 of SEQ ID NO: 2 or sequences that have 95-99% identity to SEQ ID NO: 2 or amino acids 24 thru 189 of SEQ ID NO: 2, with substitutions at wild-type position C122S generating SNPs wherein the resulting polypeptide exhibits antiviral activity against vesicular stomatitis virus (VSV) *in vitro* or antiviral activity against Encephalomyocarditis virus (EMCV) *in vivo* (mouse model) or anti-tumoral activity against Friend erythroleukemia cells (FLC) injected mice or dendritic cell maturation or cytokine release by CD4+ or CD8+ T-lymphocytes or cytokine release by monocytes or cellular antiproliferative activity on Daudi Burkitt's cell lines or cellular antiproliferative activity on TF-1 cell lines and any combination of the foregoing activities. This meets the written description of 35 USC 112, first paragraph. However, the specification does not disclose all possible polypeptides including variants (resulting in amino acid residue changes generating 95% -99% homology) of SEQ ID NO: 2 or amino acids 24 through 189 of SEQ ID NO: 2 exhibiting all anti-viral or anti-tumoral or anti-proliferative or immunomodulatory activities. Applicants have claimed a genus of polypeptides that have no common function (polypeptide of SEQ ID NO: 2 that has anti-viral activity, anti-proliferative activity, immunomodulatory activity and anti-tumoral activity etc.). It is not clear what substitutions will retain common functions. Furthermore, the specification fails to disclose if a polypeptide with 95-99% homology containing SNPs Q28R, Q70E or C122S of SEQ ID NO: 2 or amino acids 24 through 189 of SEQ

ID NO: 2 or SNPs Q28R or Q70E of SEQ ID NO: 2 or amino acids 24 through 189 of SEQ ID NO: 2 will be functionally similar to wild type containing the SNP C122S of SEQ ID NO: 2 or amino acids 24 through 189 of SEQ ID NO: 2. The specification also fails to disclose the mature and the immature forms of the polypeptide and the biological activity conferred by such a polypeptide of the instant invention.

To provide adequate written description and evidence of possession of a claimed genus, the specification must provide sufficient distinguishing identifying characteristics of the genus. The factors to be considered include disclosure of compete or partial structure, physical and/or chemical properties, functional characteristics, structure/function correlation, methods of making the claimed product, or any combination thereof. In this case, the only factor present in the claim is a partial structure in the form of a recitation of SEQ ID number and the percent identity required and the broad recitation of function (e.g: anti-viral or anti-proliferative or anti-tumoral immunomodulatory). There is not even identification of any particular portion of the structure that must be conserved to retain the functions contemplated. Further, it is not clear if these functions are found together in variants or if these functional activities are found individually (see for example, claims 46 and 64). The claims as written, however, encompass SEQ ID NO: 2 variant sequences which were not originally contemplated and fail to meet the written description provision of 35 USC 112, first paragraph because the written description is not commensurate in scope with the recitation of claims 40, 41, 43, 44, 46, 47, 50, 53, 57, 58, 60-73, 76, 78 and 79-81. Accordingly, in

the absence of sufficient recitation of distinguishing identifying characteristics, the specification does not provide adequate written description of the claimed genus.

Vas-Cath Inc. v. Mahurkar, 19 USPQ2d 1111, makes clear that "applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession *of the invention*. The invention is, for purposes of the 'written description' inquiry, *whatever is now claimed*." (See page 1117.) The specification does not "clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed" (*See Vas-Cath* at page 1116).

With the exception of isolated polypeptide C122S of SEQ ID NO: 2 or amino acids 24 thru 189 of SEQ ID NO: 2 or sequences that have 95-99% identity to SEQ ID NO: 2 or amino acids 24 thru 189 of SEQ ID NO: 2, with substitutions at wild-type position generating SNP (C122S), wherein the resulting polypeptide exhibits antiviral activity against vesicular stomatitis virus (VSV) *in vitro* or antiviral activity against Encephalomyocarditis virus (EMCV) *in vivo* (mouse model) or anti-tumoral activity against Friend erythroleukemia cells (FLC) injected mice or dendritic cell maturation or cytokine release by CD4+ or CD8+ T-lymphocytes or cytokine release by monocytes or cellular antiproliferative activity on Daudi Burkitt's cell lines or cellular antiproliferative activity on TF-1 cell lines and any combination of the foregoing activities the skilled artisan cannot envision all the detailed chemical structure of the claimed polypeptides (with up to 95% identity), regardless of the complexity or simplicity of the method of isolation.

Adequate written description requires more than a mere statement that it is part of the invention and reference to a potential method for isolating it. The polypeptide itself is required. See *Fiers v. Revel*, 25 USPQ2d 1601, 1606 (CAFC 1993) and *Amgen Inc. V. Chugai Pharmaceutical Co. Ltd.*, 18 USPQ2d 1016. One cannot describe what one has not conceived. See *Fiddes v. Baird*, 30 USPQ2d 1481, 1483. In *Fiddes v. Baird*, claims directed to mammalian FGF's were found unpatentable due to lack of written description for the broad class.

Therefore, only the isolated polypeptide C122S of SEQ ID NO: 2 or amino acids 24 thru 189 of SEQ ID NO: 2 or sequences that have 95-99% identity to SEQ ID NO: 2 or amino acids 24 thru 189 of SEQ ID NO: 2, with substitutions at wild-type position generating SNP(122S), wherein the resulting polypeptide exhibits antiviral activity against vesicular stomatitis virus (VSV) *in vitro* or antiviral activity against Encephalomyocarditis virus (EMCV) *in vivo* (mouse model) or anti-tumoral activity against Friend erythroleukemia cells (FLC) injected mice or dendritic cell maturation or cytokine release by CD4+ or CD8+ T-lymphocytes or cytokine release by monocytes or cellular antiproliferative activity on Daudi Burkitt's cell lines or cellular antiproliferative activity on TF-1 cell lines and any combination of the foregoing activities but not the full breadth of the claims (with all possible amino acids changed) meets the written description provision of 35 USC 112, first paragraph. The species specifically disclosed are not representative of the genus because the genus is highly variant. As a result, it does not appear that the inventors were in possession of various polypeptide sequences set forth in claims 40, 41, 43, 44, 46, 47, 50, 53, 57, 58, 60-73, 76, 78 and 79-81.

Applicant is reminded that *Vas-Cath* makes clear that the written description provision of 35 USC 112 is severable from its enablement provision. (See page 1115.) Applicants are directed to the Revised Interim Guidelines for the Examination of Patent Applications Under the 35 U.S.C. 112, ¶ 1 "Written Description" Requirement, Federal Register, Vol. 64, No. 244, pages 71427-71440, Tuesday December 21, 1999.

12. Claims 40, 41, 43, 44, 46, 47, 50, 53, 57, 58, 60-73, 76, 78 and 79-81 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for isolated polypeptide C122S of SEQ ID NO: 2 or amino acids 24 thru 189 of SEQ ID NO: 2 or sequences that have 95-99% identity to SEQ ID NO: 2 or amino acids 24 thru 189 of SEQ ID NO: 2, with substitutions at wild-type positions generating SNP (C122S), wherein the resulting polypeptide exhibits antiviral activity against vesicular stomatitis virus (VSV) *in vitro* or antiviral activity against Encephalomyocarditis virus (EMCV) *in vivo* (mouse model) or anti-tumoral activity against Friend erythroleukemia cells (FLC) injected mice or dendritic cell maturation or cytokine release by CD4+ or CD8+ T-lymphocytes or cytokine release by monocytes or cellular antiproliferative activity on Daudi Burkitt's cell lines or cellular antiproliferative activity on TF-1 cell lines and any combination of the foregoing activities (examples 5-8), the disclosure does not reasonably provide enablement for all variants of SEQ ID NO: 2 or amino acids 24 through 189 of SEQ ID NO: 2 (up to 95%) contemplated and which have any and all activities of SEQ ID NO:2 (anti-viral or anti-tumoral or anti-proliferative or immunomodulatory). In addition, it is also unclear what activity if any will be associated or retained with the specific SEQ ID NO: 2 variants including the mature and the immature forms. It is not clear if these functions are found together in variants or if these functional activities are found individually (see for example, claims 46 and 64). The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

Despite knowledge in the art for producing variants of a given polypeptide with amino acid deletions, insertions or substitutions the specification fails to provide any guidance regarding the changes/modifications contemplated and yet retain the function(s) of the SEQ ID NO: 2 SNP variants claimed. Furthermore, detailed information regarding the structural and functional requirements of the disclosed variant protein is lacking. Although it is accepted that the amino acid sequence of a polypeptide determines its structural and functional properties, predicting a protein's structure and function from mere sequence data remains an elusive task. The problem of predicting protein structure from sequence data and in turn utilizing predicted structural determinations to ascertain functional aspects of the protein is extremely complex. While it is known that many amino acid substitutions are generally possible in any given protein the positions within the protein's sequence where such amino acid substitutions can be made with a reasonable expectation of success are limited. Certain positions in the sequence are critical to the protein's structure/function relationship, e.g. such as various sites or regions directly involved in binding, activity and in providing the correct three-dimensional spatial orientation of binding and active sites. These or other regions may also be critical determinants of antigenicity. These regions can tolerate only relatively conservative substitutions or no substitutions (see Wells, 1990, Biochemistry 29:8509-8517; Ngo et al., 1994, The Protein Folding Problem and Tertiary Structure Prediction, pp. 492-495, provided with Office Action of 12/29/2005). However, Applicant has provided little or no guidance beyond the mere presentation of sequence data to enable one of ordinary skill in the art to determine, without undue experimentation, the

positions in the protein which are tolerant to change (e.g. such as by amino acid substitutions or deletions), and the nature and extent of changes that can be made in these positions. Although the specification outlines art-recognized procedures for producing and screening for active variants, this is not adequate guidance as to the nature of active derivatives that may be constructed, but is merely an invitation to the artisan to use the current invention as a starting point for further experimentation. Even if an active or binding site were identified in the specification, they may not be sufficient, as the ordinary artisan would immediately recognize that an active or binding site must assume the proper three-dimensional configuration to be active, which conformation is dependent upon surrounding residues; therefore substitution of non-essential residues can often destroy activity. The instant disclosure fails to disclose which if any functions of the SEQ ID NO: 2 activities will remain or required after the mutation of the polypeptide.

Although, Applicant has only demonstrated (examples 5-8) antiviral activity against vesicular stomatitis virus (VSV) *in vitro* or antiviral activity against Encephalomyocarditis virus (EMCV) *in vivo* (mouse model) or anti-tumoral activity against Friend erythroleukemia cells (FLC) injected mice or dendritic cell maturation or cytokine release by CD4+ or CD8+ T-lymphocytes or cytokine release by monocytes or cellular antiproliferative activity on Daudi Burkitt's cell lines or cellular antiproliferative activity on TF-1 cell lines for C122S SNP of SEQ ID NO:2, claims broadly recite anti-viral, anti-tumoral , anti-proliferative and immunomodulatory activities all variants . Therefore, predicting which variants would retain the functions (activities) of the protein

is well outside the realm of routine experimentation. Thus, undue amount of experimentation would be required to generate changes/modifications contemplated and yet retain the function of the proteins claimed.

Applicants have not taught how one of skill in the art would use the full scope of polypeptide sequences encompassed by the invention of claims 40, 41, 43, 44, 46, 47, 50, 53, 57, 58, 60-73, 76, 78 and 79-81. The specification as filed does not sufficiently teach one of skill in the art how to make and/or use the full scope of the claimed sequences. The amount of experimentation required to make and/or use the full scope of the claimed sequences would require trial and error experimentation to determine the functional sequences. Given the breadth of claims 40, 41, 43, 44, 46, 47, 50, 53, 57, 58, 60-73, 76, 78 and 79-81 in light of the unpredictability of the art as determined by the lack of working examples and shown by the prior at of record, the level of skill of the artisan, and the lack of guidance provided in the instant specification, it would require undue experimentation for one of ordinary skill in the art to make and use the claimed invention.

Claim Rejections - 35 USC § 112, first paragraph, maintained

13. The rejection of claim 50 under 35 U.S.C. 112, first paragraph as lacking enablement is maintained and applied to new claim 81 for reasons set forth in the Office Action dated 6/26/2006 (pages 8-10). While Applicant has shown that increased survival rate for C122S SNP polypeptide treated mice which was previously inoculated with FLC, there is no evidence to indicate that interferon α-5 in particular SNP's of interferon α-5 can be used for the treatment of various tumors disclosed in the instant

invention. Therefore, the rejection of record is maintained. The specification, while enabling for treating Friend erythro leukemia cells (FLC) injected mice, does not reasonably provide enablement for the treatment of metastasizing renal carcinomas, melanomas, lymphomas comprising follicular lymphomas and cutaneous T cell lymphoma, leukemias comprising hairy-cell leukemia, chronic lymphocytic leukemia and chronic mveloid leukemia, cancers of the liver, neck, head and kidneys, multiple myelomas, carcinoid tumours and tumours that appear following an immune deficiency comprising Kaposi's sarcoma in the case of AIDS. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

Claims 50 and 81 are drawn to treating cancers, tumors and immunological diseases by administering a polypeptide of SEQ ID NO: 2. Applicants have evaluated the anti-tumoral activity of the interferon of polypeptide of SEQ ID NO:2 comprising the C122S mutation (pages 56-57). Specifically, anti-tumoral activity against Friend erythro leukemia cells (FLC) injected mice. However, the specification as filed is insufficient to enable one of skilled in the art to practice the claimed invention of treating metastasizing renal carcinomas, melanomas, lymphomas comprising follicular lymphomas and cutaneous T cell lymphoma, leukemias comprising hairy-cell leukemia, chronic lymphocytic leukemia and chronic mveloid leukemia, cancers of the liver, neck, head and kidneys, multiple myelomas, carcinoid tumours and tumours that appear following an immune deficiency comprising Kaposi's sarcoma in the case of AIDS without an

undue amount of experimentation because the specification and the prior art have not treated all cancers or tumors.

Applicant has not disclosed how to use the claimed invention to treat metastasizing renal carcinomas, melanomas, lymphomas comprising follicular lymphomas and cutaneous T cell lymphoma, leukemias comprising hairy-cell leukemia, chronic lymphocytic leukemia and chronic mveloid leukemia, cancers of the liver, neck, head and kidneys, multiple myelomas, carcinoid tumours and tumours that appear following an immune deficiency comprising Kaposi's sarcoma in the case of AIDS of the subjects. There is insufficient evidence of the invention with respect to the *in vivo* operability of the claimed invention. In addition, there is no guidance provided in choosing the treatment regimen with therapeutically effective amount for administering to the subjects. Pharmaceutical therapies are unpredictable for the following reasons; (1) the proteins may be inactivated before producing an effect, i.e. such as proteolytic degradation, immunological inactivation or due to an inherently short half life protein; (2) the protein may otherwise not reach the target area because, for example, the protein may not be able to cross the mucosa; (3) other functional properties, known or unknown, may make the protein unsuitable for *in vivo use*, i.e. may produce adverse side effects prohibitive to the using of such treatment.

Since, there is inadequate guidance as to the nature of the invention, it is merely an invitation to the artisan to use the current invention as a starting point for further experimentation for treating metastasizing renal carcinomas, melanomas, lymphomas comprising follicular lymphomas and cutaneous T cell lymphoma, leukemias comprising

hairy-cell leukemia, chronic lymphocytic leukemia and chronic mveloid leukemia, cancers of the liver, neck, head and kidneys, multiple myelomas, carcinoid tumours and tumours that appear following an immune deficiency comprising Kaposi's sarcoma in the case of AIDS by administering the polypeptide of the instant invention. In addition, because there are no examples provided describing diseases or models it would require an undue amount of experimentation to one of skill in the art to practice the claimed invention.

Given the breadth of claims 50 and 81 in light of the unpredictability of the art as determined by the lack of working examples, the level of skill of the artisan, and the lack of guidance provided in the instant specification and the prior art of record, it would require undue experimentation for one of ordinary skill in the art to make and use the claimed invention for a method of treating metastasizing renal carcinomas, melanomas, lymphomas comprising follicular lymphomas and cutaneous T cell lymphoma, leukemias comprising hairy-cell leukemia, chronic lymphocytic leukemia and chronic mveloid leukemia, cancers of the liver, neck, head and kidneys, multiple myelomas, carcinoid tumours and tumours that appear following an immune deficiency comprising Kaposi's sarcoma in the case of AIDS by administering interferon of SEQ ID NO:2 comprising C122S SNP.

Conclusion

14. No Claims are allowable.

15. Claim 51 directed to the invention(s) of 6 of the restriction mailed 6/21/05 does not require all the limitations of an allowable product claim, and is NOT been rejoined.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jegatheesan Seharaseyon, Ph.D whose telephone number is 571-272-0892. The examiner can normally be reached on M-F: 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Nickol can be reached on 571-272-0835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jegatheesan Seharaseyon
Patent Examiner

JS
Art Unit 1647
May 11th, 2007.